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(71)Applicant : CAPSTONE TURBINE CORP

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(72)Inventor : MARK G GILBRETH  
JAMES BRIAN DICKI  
CHARLES R GILBRETH JR  
EDWARD C EDELMAN

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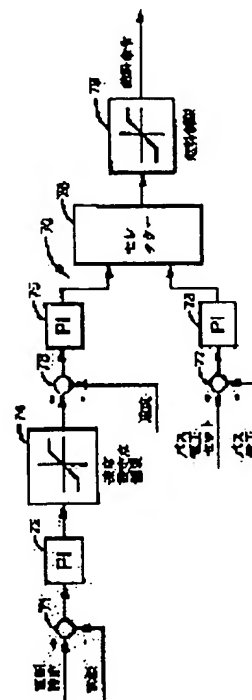
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(54) METHOD AND EQUIPMENT FOR CONTROLLING PERMANENT MAGNET  
TURBINE GENERATOR/MOTOR

(57)Abstract:

PROBLEM TO BE SOLVED: To find maximum efficiency for a gas turbine engine by keeping the temperature of exhaust gas of a gas turbine constant with such stability that can be obtained by changing the sampling time of different proportional- plus-integral controllers in a control loop of the gas turbine.

SOLUTION: A control system can be stabilized by the timing of serially connected proportional/integral controllers. The temperature of exhaust gas is associated with the fuel control for a gas turbine. Therefore, in order to keep the set value for exhaust gas temperature constant, response should be made in the appropriate time frame. In a loop timing of a power proportional/ integral controller 72, control depends on the response time of a speed and exhaust gas temperature controller 75. Therefore, these parameter should be stabilized before the power proportional/integral controller 72 receives a next feedback signal. The gas turbine control system can be stabilized by setting the sampling times of the different proportional/integral controllers to different ones.



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